

US009129328B2

(12) United States Patent

Nathan et al.

(54) PROCESS FOR ORDERING A SELECTION IN ADVANCE, DIGITAL SYSTEM AND JUKEBOX FOR EMBODIMENT OF THE PROCESS

(75) Inventors: Guy Nathan, Nun's Island (CA);

Dominique Dion, Laval (CA); **Tony Mastronardi**, Pierrefonds (CA)

(73) Assignee: TouchTunes Music Corporation, New

York, NY (US)

(*) Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

This patent is subject to a terminal dis-

claimer.

(21) Appl. No.: 13/594,009

(22) Filed: Aug. 24, 2012

(65) Prior Publication Data

US 2012/0330793 A1 Dec. 27, 2012

Related U.S. Application Data

(60) Continuation of application No. 12/801,744, filed on Jun. 23, 2010, now Pat. No. 8,275,668, which is a division of application No. 11/267,303, filed on Nov. 7, 2005, now Pat. No. 7,778,879, which is a division of application No. 09/585,325, filed on Jun. 2, 2000, now abandoned.

(30) Foreign Application Priority Data

Feb. 23, 2000 (FR) 00 02252

(51) **Int. Cl.**

G06Q 30/06 (2012.01) *G07F 17/16* (2006.01)

(Continued)

(52) U.S. Cl.

CPC *G06Q 30/0633* (2013.01); *G06Q 30/0641* (2013.01); *G07F 17/16* (2013.01); *G07F 17/305* (2013.01); *G11B 19/08* (2013.01)

(10) Patent No.:

US 9,129,328 B2

(45) **Date of Patent:**

*Sep. 8, 2015

(58) Field of Classification Search

See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

3,710,137 A 1/1973 Stephens, Jr. 3,807,541 A 4/1974 Kortenhaus (Continued)

FOREIGN PATENT DOCUMENTS

AU 199954012 4/2000 CA 2119184 9/1994

(Continued)

OTHER PUBLICATIONS

"Ecast Forges Landmark International Technology Partnership", Business Wire at www.findarticles.com/cf_0/m0EIN/2000_July_25/63663604/print.jhtml, 2 pages, Jul. 25, 2000.

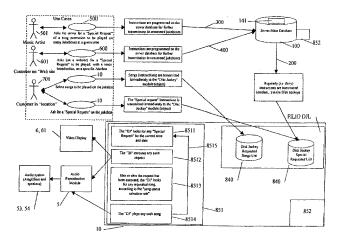
(Continued)

Primary Examiner — Yogesh C Garg (74) Attorney, Agent, or Firm — Nixon & Vanderhye PC

(57) ABSTRACT

This invention relates to a process for ordering a selection in advance, characterized in that it includes a step in which a menu is displayed followed by a selection in this menu, to make specific requests and particularly: a step displaying the event for which the advance order of a selection is made, and then selection of the event; a step displaying the identity of destination equipment on which the selection is to be played, and then selection of this equipment; a step displaying the date and time at which the selection is to be made on the destination equipment; a step in which particular requests are recorded and downloaded onto a file only after payment has been verified.

19 Claims, 4 Drawing Sheets



(51)	Int Cl			5,058,089	Λ	10/1001	Yoshimaru
(51)	Int. Cl. G07F 17/30		(2006.01)	5,077,607		12/1991	Johnson et al.
			,	5,081,534	A	1/1992	Geiger et al.
	G11B 19/08		(2006.01)	5,101,451		3/1992	Ash et al.
(50)		D . f	C!4- J	5,101,499 5,106,097		3/1992 4/1992	Streck et al.
(56)		Referen	ces Cited	5,117,407		5/1992	
	U.S.	PATENT	DOCUMENTS	D327,687		7/1992	Arbiter
	0.5.	11112111	DOCOMENTS	5,128,862			Mueller
	3,982,620 A		Kortenhaus	5,138,712 5,148,159		8/1992	Corbin Clark et al.
	4,008,369 A	2/1977	Theurer et al.	5,146,139			Kirouac
	4,064,362 A 4,186,438 A	12/1977	Williams Benson	5,159,678		10/1992	Wengelski et al.
	4,232,295 A		McConnell	5,163,131		11/1992	
	4,335,809 A	6/1982	Wain	5,166,886 D332,096		11/1992	Molnar Wolff et al.
	4,335,908 A	6/1982		5,172,413		12/1992	Bradley et al.
	4,336,935 A 4,356,509 A		Goldfarb Skerlos et al.	5,180,309		1/1993	
	4,369,442 A		Werth et al.	5,189,630			Barstow et al.
	4,375,287 A	3/1983		5,191,573 5,191,611		3/1993 3/1993	
	4,412,292 A	10/1983		5,191,011			Graczyk
	4,413,260 A 4,521,014 A	6/1985	Siegel et al.	5,197,094		3/1993	Tillery
	4,528,643 A	7/1985		5,203,028		4/1993	Shiraishi
	4,558,413 A		Schmidt	5,210,854 5,214,761		5/1993 5/1993	Beaverton et al. Barrett et al.
	4,572,509 A	2/1986		5,214,761		6/1993	Waite et al.
	4,577,333 A 4,582,324 A	3/1986 4/1986	Lewis et al.	5,228,015		7/1993	Arbiter et al.
	4,588,187 A	5/1986		5,231,157			Herzig et al.
	4,593,904 A	6/1986		5,237,157			Kaplan
	4,597,058 A	6/1986		5,237,322 5,239,480		8/1993 8/1993	Heberle Huegel
	4,636,951 A 4,652,998 A	1/1987 3/1987	Harlick	5,250,747		10/1993	Tsumura
	4,654,799 A	3/1987		5,252,775		10/1993	Urano
	4,658,093 A		Hellman	5,260,999		11/1993	Wyman
	4,667,802 A		Verduin	5,261,104 5,262,875		11/1993 11/1993	Bertram et al. Mincer et al.
	4,674,055 A		Ogaki et al.	5,276,866		1/1994	Paolini
	4,675,538 A 4,677,311 A		Epstein Morita	5,278,904	A	1/1994	Servi
	4,677,565 A	6/1987	Ogaki	5,282,028		1/1994	Johnson et al.
	4,696,527 A		Ding et al.	5,289,476 5,289,546		2/1994 2/1994	Johnson et al. Hetherington
	4,703,465 A	10/1987		5,315,161		5/1994	Robinson
	4,704,725 A 4,704,804 A	11/1987	Harvey et al. Leal	5,315,711	A	5/1994	Barone et al.
	4,707,804 A	11/1987		5,319,455		6/1994	Hoarty et al.
	4,722,053 A	1/1988		5,321,846 5,327,230		6/1994 7/1994	Yokota et al. Dockery
	4,761,684 A 4,766,581 A	8/1988 8/1988		5,335,313			Douglas
	4,787,050 A	11/1988		5,339,095		8/1994	
	4,792,849 A		McCalley	5,339,413 5,341,350		8/1994	Koval
	4,807,052 A	2/1989	Amano	5,355,302		8/1994 10/1994	Frank Martin et al.
	4,811,325 A 4,814,972 A	3/1989	Sharples Winter et al.	5,357,276		10/1994	
	4,815,868 A		Speicher	5,369,778			SanSoucie
	4,825,054 A	4/1989	Rust	5,375,206 5,386,251		1/1994	Hunter Movshovich
	4,829,570 A		Schotz	5,404,505			Levinson
	4,852,154 A 4,857,714 A	8/1989	Lewis et al. Sunyich	5,406,634	A	4/1995	Anderson et al.
	4,868,832 A	9/1989		5,408,417		4/1995	
	4,885,694 A		Pray et al.	5,410,326 5,410,703			Goldstein Nilsson et al.
	4,905,279 A 4,920,432 A	2/1990 4/1990	Nishio	5,418,713		5/1995	
	4,920,432 A 4,922,420 A		Nakagawa	5,420,923		5/1995	
	4,924,378 A	5/1990	Hershey	5,428,252			Walker
	4,926,485 A		Yamashita	5,428,606 5,431,492		6/1995 7/1995	Moskowitz Rothschild
	4,937,807 A 4,949,187 A	6/1990 8/1990		5,440,632			Bacon et al.
	4,953,159 A		Hayden et al.	5,444,499		8/1995	
	4,956,768 A	9/1990	Sidi	5,445,295	A	8/1995	Brown
	4,958,835 A		Tashiro	5,455,619 5,455,926		10/1995 10/1995	Truckenmiller et al. Keele
	4,965,675 A 4,977,593 A		Masashi et al. Ballance	5,457,305		10/1993	
	4,977,593 A 4,999,806 A		Chernow	5,465,213		11/1995	
	5,008,814 A	4/1991	Mathur	5,465,329	A	11/1995	Whistler
	5,012,121 A	4/1991	Hammond	5,467,326			Miyashita et al.
	5,027,426 A		Chiocca	5,469,370			Ostrover et al.
	5,041,921 A 5,046,093 A		Scheffler Wachob	5,469,573 5,471,576		11/1995	McGill et al.
	5,053,758 A		Cornett et al.	5,473,746			Pritt et al.
	,,			, ,	_		

(56)		Referen	ces Cited	5,691,964 5,696,914	A		Niederlein et al.
	U.S. I	PATENT	DOCUMENTS	5,697,844	A	12/1997	Nahaboo et al. Von Kohorn
				5,703,795			Mankowitz
5,475,835		12/1995		5,704,146 5,708,811			Herring et al. Arendt
5,481,509 5,487,167			Knowles Dinallo et al.	5,712,976		1/1998	
5,489,103			Okamoto	5,713,024			Halladay
5,495,610		2/1996		5,715,416		2/1998	
5,496,178		3/1996	Back	5,717,452			Janin et al.
5,499,921		3/1996		5,721,583 5,721,815			Harada et al. Ottesen et al.
5,511,000 5,513,117		4/1996 4/1996		5,721,813			Logan et al.
5,515,177			Mankovitz et al.	5,721,829			Dunn et al.
5,519,435			Anderson	5,724,525			Beyers et al.
5,519,457			Nishigaki et al.	5,726,909 5,734,719			Krikorian Tsevdos
5,521,631			Budow et al.	5,734,719			Castille
5,521,918 5,521,922		5/1996	Fujinami et al.	5,739,451			Winksy et al.
5,523,781			Brusaw	5,743,745		4/1998	Reintjes
5,528,732		6/1996		5,745,391		4/1998	
5,532,734		7/1996		5,748,254			Harrison et al.
5,532,991		7/1996		5,748,468 5,748,954			Notenboom et al. Mauldin
5,546,039 5,548,729			Hewitt et al. Akiyoshi	5.751.336			Aggarwal et al.
5,550,577			Verbiest	5,752,232			Basore et al.
5,554,968		9/1996		5,757,936		5/1998	
5,555,244		9/1996		5,758,340		5/1998	
5,557,515			Abbruzzese et al.	5,761,655 5,762,552		6/1998	Hoffman
5,557,541 5,557,724			Schulhof Sampat et al.	5,774,527			Handelman et al.
5,559,505			McNair	5,774,668			Choquier
5,559,549			Hendricks	5,774,672			Funaĥashi
5,559,714			Banks et al.	5,781,889		7/1998	
5,561,709			Remillard	5,786,784 5,790,172			Gaudichon Imanaka
5,565,908		10/1996		5,790,671			Cooper
5,566,237 5,570,363		10/1996 10/1996		5,790,856		8/1998	
5,578,999			Matsuzawa et al.	5,790,935		8/1998	
5,579,404			Fielder et al.	5,793,364			Bolanos et al.
5,583,561			Baker et al.	5,793,980 5,798,785		8/1998	Glaser Hendricks
5,583,937			Ullrich et al.	5,802,283			Grady et al.
5,583,994 5,583,995		12/1996	Gardner et al.	5,802,558		9/1998	
5,590,318			Zbikowski et al.	5,802,599		9/1998	Cabrera
5,592,482			Abraham	5,805,804			Laursen et al.
5,592,551		1/1997		5,808,224		9/1998	
5,592,611			Midgely et al.	5,809,246 5,812,643			Goldman Schelberg et al.
5,594,509 5,596,702		1/1997 1/1997		5,815,146			Youden et al.
5,607,099			Yeh et al.	5,825,884		10/1998	Zdepski et al.
5,612,581			Kageyama	5,828,343			MacDonald, Jr. et al.
5,613,909			Stelovsky	5,831,555			Yu et al.
5,616,876	A	4/1997	Cluts	5,831,663 5,832,024			Waterhouse et al. Schotz et al.
5,617,565 5,619,247		4/1997 4/1997	Augenbraun et al.	5,832,287		11/1998	
5,619,249			Billock et al.	5,835,843		11/1998	
5,619,250			McClellan et al.	5,842,869			McGregor et al.
5,619,698		4/1997		5,845,104		12/1998	
5,623,666		4/1997		5,845,256 5,848,398		12/1998	Pescitelli et al.
5,631,693 5,636,276			Wunderlich et al. Brugger	5,851,149			Xidos et al.
5,638,426		6/1997		5,854,887		12/1998	
5,642,337		6/1997		5,857,020			Peterson
5,644,714		7/1997	Kikinis	5,857,707			Devlin
5,644,766		7/1997		5,862,324 5,864,811			Collins Tran et al.
5,654,714 5,659,466			Takahashi et al. Norris et al.	5,864,868			Contois
5,659,466 5,661,517			Budow et al.	5,864,870	A	1/1999	
5,661,802			Nilssen	5,867,714	A	2/1999	Todd
5,663,756	A	9/1997	Blahut et al.	5,870,721		2/1999	
5,668,592			Spaulding	5,880,386			Wachi et al.
5,668,778		9/1997		5,880,769			Nemirofsky et al.
5,668,788 5,675,734			Allison	5,884,028 5,884,298			Kindell
5,675,734 5,680,533		10/1997	Hair Yamato et al.	5,884,298		3/1999 3/1999	Madison, Jr. et al.
5,684,716			Freeman	5,887,193		3/1999	Takahashi
5,689,641			Ludwig et al.	5,893,162			Lau et al.
5,691,778		11/1997		5,895,455			Bellinger et al.
			-				

(56)			Referen	ces Cited	6,185,619	B1		Joffe et al.
		U.S. 1	PATENT	DOCUMENTS	6,191,780 6,192,340	B1		Martin et al. Abecassis
		0.0.		DOCOMENTO	6,195,732	B1		Adams et al.
	5,896,094			Narisada et al.	6,198,408		3/2001	
	5,903,266			Berstis et al. Rakavv	6,202,060 6,209,060		3/2001 3/2001	Machida
	5,913,040 5,914,712			Sartain et al.	6,212,138		4/2001	Kalis et al.
	5,915,094		6/1999	Kouloheris	6,216,227			Goldstein et al.
	5,915,238		6/1999		6,219,692 6,223,209		4/2001 4/2001	
	5,917,537 5,917,835		6/1999	Lightfoot Barrett	6,226,412			Schwab
	5,918,213			Bernard et al.	6,226,715			Van Der Wolf et al.
	5,920,700			Gordon et al.	6,240,550 6,243,725			Nathan et al. Hempleman et al.
	5,920,702 5,923,885			Bleidt et al. Johnson	6,247,022			Yankowski
	5,926,531		7/1999		6,256,773	B1		Bowman-Amuah
	5,926,624			Katz et al.	6,262,569 6,280,327			Carr et al. Leifer et al.
	5,930,765 5,931,908		7/1999 8/1999		6,282,709			Reha et al.
	5,933,090			Christenson	6,288,991	В1	9/2001	Kajiyama et al.
	5,940,504	A	8/1999	Griswold	6,289,382			Bowman-Amuah
	5,949,411			Doerr et al.	6,292,443 6,298,373			Awazu et al. Burns et al.
	5,949,688 5,953,429			Montoya Wakai et al.	6,301,710	B1		Fujiwara
	5,956,716	A	9/1999	Kenner et al.	6,302,793			Fertitta et al.
	5,959,869		9/1999		6,308,204 6,311,214		10/2001	Nathan et al.
	5,959,945 5,960,167			Kleiman Roberts et al.	6,315,572			Owens et al.
	5,963,916		10/1999		6,323,911			Schein et al.
	5,966,495			Takahashi	6,332,025 6,336,219		1/2001	Takahashi et al.
	5,970,467 5,978,855		10/1999 11/1999		6,341,166		1/2002	
	5,978,912			Rakavy et al.	6,344,862			Williams et al.
	5,980,261			Mino et al.	6,346,951 6,353,820			Mastronardi Edwards et al.
	5,999,499 5,999,624		12/1999 12/1999	Pines et al.	6,356,971			Katz et al.
	6,002,720		12/1999		6,359,661	B1	3/2002	Nickum
	6,005,599	A		Asai et al.	6,370,580			Kriegsman Nishimatsu
	6,008,735 6,009,274		12/1999 12/1999	Chiloyan et al.	6,379,187 6,381,575			Martin et al.
	6,011,758			Dockes et al.	6,384,737	B1	5/2002	Hsu et al.
	6,018,337	A	1/2000	Peters	6,393,584			McLaren et al.
	6,018,726			Tsumura	6,396,480 6,397,189			Schindler et al. Martin et al.
	6,021,386 6,023,705		2/2000 2/2000	Bellinger et al.	6,407,987			Abraham
	6,025,868	\mathbf{A}	2/2000	Russo	6,408,435		6/2002	
	6,026,168	A		Li et al.	6,408,437 6,421,651			Hendricks et al. Tedesco et al.
	6,034,925 6,038,591			Wehmeyer Wolfe et al.	6,425,125			Fries et al.
	6,040,829	A		Croy et al.	6,430,537			Tedesco et al.
	6,041,354			Biliris et al.	6,430,738 6,434,678		8/2002	Gross et al. Menzel
	6,049,891 6,054,987			Inamoto Richardson	6,438,450	B1		DiLorenzo
	6,055,573	A	4/2000	Gardenswartz et al.	6,442,549			Schneider
	6,057,874			Michaud	6,446,080 6,446,130		9/2002	Van Ryzin et al. Grapes
	6,067,564 6,069,672			Urakoshi et al. Claassen	6,449,688			Peters et al.
	6,072,982	A	6/2000	Haddad	6,470,496			Kato et al.
	6,107,937			Hamada	6,473,794 6,488,508			Guheen et al. Okamoto
	6,118,450 6,124,804			Proehl et al. Kitao et al.	6,490,570			Numaoka
	6,131,088	A	10/2000	Hill	6,493,871			McGuire et al.
	6,131,121			Mattaway et al.	6,496,927 6,498,855			McGrane et al. Kokkosoulis et al.
	6,134,547 6,138,150			Huxley et al. Nichols et al.	6,522,707			Brandstetter et al.
	6,146,210			Cha et al.	6,535,911			Miller et al.
	6,148,142			Anderson	6,538,558 6,543,052			Sakazume et al. Ogasawara
	6,151,077 6,151,634		11/2000	Vogel et al.	6,544,122			Araki et al.
	6,154,207			Farris et al.	6,549,719	B2	4/2003	Mankovitz
	6,157,935	A	12/2000	Tran et al.	D475,029			Nathan et al.
	6,161,059 6,167,358			Tedesco et al. Othmer et al.	6,560,651 6,570,507			Katz et al. Lee et al.
	6,170,060			Mott et al.	6,571,282			Bowman-Amuah
	6,173,172			Masuda et al.	6,577,735	B1	6/2003	Bharat
	6,175,861			Williams, Jr. et al.	6,578,051			Mastronardi et al.
	6,182,126 6,185,184			Nathan et al. Mattaway et al.	6,587,403 6,590,838			Keller et al. Gerlings et al.
	0,100,104	DI	Z/ ZUU I	ivianaway et ai.	0,220,038	DΙ	1/2003	Germigs & al.

(56)	Referen	ices Cited	7,783,774 7,793,331			Nathan et al. Nathan et al.
U.S.	. PATENT	DOCUMENTS	7,819,734	B2	10/2010	Nathan et al.
	= 10000	D. ##	7,822,687 D629,382			Brillon et al. Nathan et al.
6,598,230 B1 6,622,307 B1	7/2003 9/2003	Ballhorn	7,937,724			Clark et al.
6,628,939 B2		Paulsen	D642,553	\mathbf{S}		Nathan et al.
6,629,318 B1	9/2003	Radha et al.	7,992,178			Nathan et al.
6,643,620 B1		Contolini et al.	7,996,873 8,015,200			Nathan et al. Seiflein et al.
6,643,690 B2 6,654,801 B2		Duursma et al. Mann et al.	8,028,318	B2		Nathan
6,658,090 B1		Harjunen et al.	8,032,879			Nathan et al.
6,662,231 B1		Drosset et al.	8,037,412 8,052,512	B2 B2		Nathan et al. Nathan et al.
6,702,585 B2 6,728,824 B1	3/2004 4/2004	Okamoto Chen	8,103,589			Nathan et al.
6,728,956 B2	4/2004		8,151,304			Nathan et al.
6,728,966 B1		Arsenault et al.	8,165,318 8,214,874			Nathan et al. Nathan
6,744,882 B1 6,751,794 B1		Gupta et al. McCaleb et al.	D665,375			Garneau et al.
6,755,744 B1		Nathan et al.	8,292,712			Nathan et al.
6,762,585 B2	7/2004		8,325,571 8,332,895			Cappello et al. Nathan et al.
D495,755 S 6,789,215 B1		Wurz et al. Rupp et al.	8,429,530			Neuman et al.
6,816,578 B1		Kredo et al.	2001/0016815	A1		Takahashi et al.
6,850,252 B1	2/2005	Hoffberg	2001/0023403			Martin et al. Zainoulline
6,898,161 B1		Nathan Johnson	2001/0030660 2001/0030912			Kalis et al.
6,904,592 B1 6,920,614 B1		Schindler et al.	2001/0037367	A1	11/2001	
6,928,653 B1	8/2005	Ellis et al.	2001/0044725			Matsuda et al.
6,934,700 B1		Ijdens et al.	2002/0002079 2002/0002483			Martin et al. Siegel et al.
6,942,574 B1 6,974,076 B1	12/2005	LeMay et al. Siegel	2002/0018074			Buil et al.
7,024,485 B2	4/2006	Dunning et al.	2002/0032603		3/2002	
7,073,172 B2		Chamberlain	2002/0040371 2002/0113824		4/2002 8/2002	Burgess Myers
7,103,583 B1 7,107,109 B1		Baum et al. Nathan et al.	2002/0113824			Eyal et al.
7,111,129 B2		Percival	2002/0118949			Jones et al.
7,114,013 B2		Bakke et al.	2002/0120925 2002/0123331		8/2002	Logan Lehaff et al.
7,124,194 B2 7,160,132 B2		Nathan et al. Phillips et al.	2002/0123331			Mastronardi
7,181,458 B1		Higashi	2002/0129036	A1		Ho Yuen Lok et al.
7,188,352 B2	3/2007	Nathan et al.	2002/0162104 2003/0004833			Raike et al. Pollak et al.
7,195,157 B2 7,198,571 B2		Swartz et al. LeMay et al.	2003/0004833			Sven et al.
7,198,371 B2 7,206,417 B2		Nathan	2003/0006911	A1		Smith et al.
7,210,141 B1		Nathan et al.	2003/0008703 2003/0014272		1/2003 1/2003	Gauselmann Goulet et al.
7,231,656 B1 7,237,198 B1		Nathan Chaney	2003/0014272		1/2003	
7,281,652 B2	10/2007		2003/0027120	A1	2/2003	Jean
7,293,277 B1	11/2007		2003/0031096			Nathan et al.
D560,651 S 7,347,723 B1	1/2008 3/2008	Berkheimer et al.	2003/0037010 2003/0041093		2/2003 2/2003	Schmelzer Yamane et al.
D566,195 S		Ichimura et al.	2003/0050058	A1	3/2003	Walsh et al.
7,356,831 B2		Nathan	2003/0064805		4/2003	Wells Fiennes et al.
7,406,529 B2 7,415,707 B2	7/2008	Reed Taguchi et al.	2003/0065639 2003/0076380			Yusef et al.
7,418,474 B2		Schwab	2003/0088538	A1		Ballard
7,424,731 B1		Nathan et al.	2003/0093790			Logan et al.
7,430,736 B2 7,433,832 B1		Nguyen et al. Bezos et al.	2003/0101450 2003/0104865			Davidsson et al. Itkis et al.
7,448,057 B1	11/2008		2003/0108164	A1		Laurin et al.
7,483,958 B1		Elabbady et al.	2003/0135424			Davis et al.
7,500,192 B2 7,512,632 B2		Mastronardi Mastronardi et al.	2003/0144910 2003/0176218			Flaherty et al. LeMay et al.
7,512,032 B2 7,519,442 B2		Nathan et al.	2003/0191753	A1	10/2003	Hoch
7,522,631 B1	4/2009	Brown et al.	2003/0208586			Mastronardi et al.
7,533,182 B2 7,549,919 B1		Wurtzel et al.	2003/0225834 2004/0010800		1/2003	Lee et al.
7,574,727 B2		Nathan et al. Nathan et al.	2004/0025185			Goci et al.
7,634,228 B2 *	12/2009	White et al 455/3.06	2004/0085334			Reaney
7,647,613 B2		Drakoulis et al.	2004/0103150 2004/0145477			Ogdon et al. Easter et al.
7,657,910 B1 D616,414 S		McAulay et al. Nathan et al.	2004/0143477			Seedman et al.
7,749,083 B2		Nathan et al.	2004/0204220	A1	10/2004	Fried et al.
7,757,264 B2		Nathan	2004/0205171			Nathan et al.
7,761,538 B2 7,770,165 B2		Lin et al. Olson et al.	2004/0220926 2004/0243482		11/2004 12/2004	Lamkin et al.
7,778,879 B2		Nathan et al.	2004/0243482			Higgins
7,783,593 B2		Espino	2005/0060405			Nathan et al.

(56)	Referen	nces Cited	2011/029893 2011/030468			Nathan et al. Khedouri et al.
U.S	PATENT	DOCUMENTS	2011/030408			Nathan et al.
0.0		BOCOMENTS	2012/000998			Nathan et al.
2005/0073782 A1		Nathan	2012/005371			Nathan
2005/0086172 A1		Stefik	2012/010546 2012/014373			Franceus Nathan et al.
2005/0111671 A1 2005/0125833 A1		Nathan Nathan et al.	2012/014373			Dion et al.
2005/0125855 AT 2005/0201254 A1		Looney et al.	2012/015853		6/2012	Dion et al.
2005/0267819 A1		Kaplan	2012/016696			Nathan et al.
2006/0018208 A1		Nathan et al.	2012/024014 2012/032365			Nathan Mastronardi et al.
2006/0031896 A1 2006/0035707 A1		Pulitzer	2012/032303			Tse et al.
2006/0033707 A1 2006/0062094 A1		Nguyen et al. Nathan et al.	2013/004071			Nathan et al.
2006/0143575 A1		Sauermann	2013/004499			Cappello et al.
2006/0227673 A1		Yamashita et al.	2013/007009			Rivera et al.
2006/0239131 A1		Nathan et al.	2013/009105 2014/002615			Nathan et al. Nathan
2006/0247064 A1 2006/0293773 A1		Nguyen et al. Nathan et al.	2014/002013	4 A1	1/2014	Naulan
2007/0025701 A1		Kawasaki et al.	F	OREIG	N PATE	NT DOCUMENTS
2007/0047198 A1		Crooijmans et al.	•	OILLI	J1 11 11 L	IVI DOCOMENTO
2007/0086280 A1		Cappello et al. Nathan	CN	134	0939	3/2002
2007/0121430 A1 2007/0139410 A1		Abe et al.	DE		6058	8/1985
2007/0142022 A1		Madonna et al.	DE DE		3737 A1 0835 A1	1/1988 1/1989
2007/0160224 A1		Nathan	DE	A 382		1/1989
2007/0204263 A1		Nathan et al. Nathan	DE		5071	11/1989
2007/0209053 A1* 2007/0220052 A1		Kudo et al.	DE		4198	6/1994
2007/0247979 A1		Brillon et al.	DE DE		9172 0739	9/1996
2008/0003881 A1	1/2008		DE DE	1901		9/1997 8/2000
2008/0065925 A1		Oliverio et al.	EP	A008		6/1983
2008/0066016 A1 2008/0069545 A1		Dowdy et al. Nathan et al.	EP		0593 A2	5/1985
2008/0009343 A1 2008/0077962 A1		Nathan	EP		6921	2/1988
2008/0086379 A1		Dion et al.	EP EP	A 028	3304 3350	9/1988 9/1988
2008/0096659 A1		Kreloff et al.	EP		9298	3/1989
2008/0137849 A1 2008/0155588 A1		Nathan Roberts et al.	EP	A 031		4/1989
2008/0168807 A1		Dion et al.	EP		0787	11/1989
2008/0171594 A1		Fedesna et al.	EP EP		3186 5 168 A	4/1990 5/1991
2008/0195443 A1		Nathan et al.	EP		4562 A2	1/1992
2008/0198271 A1 2008/0222199 A1	8/2008	Malkı Tiu et al.	EP		0558	4/1992
2008/0222199 A1 2008/0239887 A1		Tooker et al.	EP EP		8130	8/1992
2008/0275771 A1	11/2008		EP EP	0.503	8130 A2 7 110	8/1992 10/1992
2008/0305738 A1		Khedouri et al.	EP		9834	3/1993
2009/0030802 A1 2009/0037969 A1		Plotnick et al. Nathan et al.	EP		8319 B1	4/1993
2009/0042632 A1		Guenster et al.	EP EP	A 063	1283 2371	12/1994 1/1995
2009/0063976 A1		Bull et al.	EP		1076	5/1996
2009/0070341 A1 2009/0091087 A1		Mastronardi et al. Wasmund	EP	078	6122 B1	7/1997
2009/009108/ A1 2009/0100092 A1	4/2009		EP		7103	1/1998
2009/0138111 A1		Mastronardi	EP EP		1616 A2 9964	5/1998 6/1999
2009/0168901 A1	7/2009	Yarmolich et al.	EP		9570 A1	11/1999
2009/0172565 A1 2009/0177301 A1	7/2009	Jackson et al. Hayes	EP	0 97	4896 A1	1/2000
2009/01/7301 A1 2009/0240721 A1	9/2009		EP		4941	1/2000
2009/0241061 A1		Asai et al.	EP EP		2695 1391	3/2000 5/2000
2009/0265734 A1		Dion et al.	EP		0951	1/2002
2009/0282491 A1 2009/0287696 A1		Nathan Galuten	EP		8802	3/2003
2009/0298577 A1	12/2009		EP EP		8427	4/2004 4/2004
2009/0307314 A1	12/2009	Smith et al.	EP EP		9919 2251	8/2008
2009/0328095 A1		Vinokurov et al.	FR	A 260		2/1988
2010/0042505 A1 2010/0131558 A1		Straus Logan et al.	FR	280	8906	11/2001
2010/0131338 A1 2010/0211818 A1		Nathan et al.	GB GB	A 212	2799 6328 A	1/1984 4/1986
2010/0241259 A1	9/2010	Nathan	GB GB		0328 A 0943	4/1986 8/1986
2010/0247081 A1	9/2010		GB	219	3420	2/1988
2010/0269066 A1 2010/0299232 A1		Nathan et al. Nathan et al.	GB		8680 A	6/1991
2010/0299232 A1 2010/0306179 A1	12/2010		GB GB		4469 9398	10/1992 3/1993
2011/0055019 A1	3/2011	Coleman	GB GB		2170 A	6/1993
2011/0066943 A1		Brillon et al.	GB	238	0377	4/2003
2011/0173521 A1		Horton et al.	GB		5584	8/2014
2011/0270894 A1 2011/0283236 A1		Mastronardi et al. Beaumier et al.	JP JP	57-17 58-17		10/1982 10/1983
2011.0205250 MI	11.2011		~ _	23 17		_0, _0

(56)	References C	Cited	WO WO 03/005743 1/2003 WO WO 03/063613 8/2003
	FOREIGN PATENT D	OCUMENTS	WO WO 03/063613 8/2003 WO WO 2004/029775 4/2004
			WO WO 2005/026916 3/2005
JР		1985	WO WO 2006/014739 2/2006 WO WO 2006/056933 6/2006
JP JP		1986 1987	WO WO 2006/138064 12/2006
JР		1987	WO WO 2007/092542 8/2007
JP	63-60634 3/1	1988	WO WO 2008-033853 3/2008
JР		1990	WO WO 2011094330 8/2011 WO WO 2013/040603 3/2013
JP JP		1993 1993	
JР		1994	OTHER PUBLICATIONS
JP		1995	"Ecast Selects Viant to Build Siren Entertainment System (TM)",
JP JP		1995 1996	ScreamingMedia, PR Newswire San Francisco, industry.java.sum.
JР		1996	com/javanews/stories/story2/0,1072.17618,00.html, 3 pages, Aug. 3,
JР		1996	1999.
JP JP		1996 1997	Derfler et al., "How Networks Work", Millennium Ed., Que Corpo-
JР		1997	ration, Jan. 2000.
JP	9127964 5/1	1997	European Search Report from EP 1 993 079.
JР		1997	European Search Report issued for European Application No. 08000845.1-1238/1962251, dated Apr. 3, 2009.
JP JP		1998 1998	Gralla, "How the Internet Works", Millennium Ed., Que Corporation,
ĴР		1999	Aug. 1999.
JР		1999	Hicks et al., "Dynamic software updating", ACM PLDI, pp. 13-23,
JP JP		1999 2002	2001.
JР		2002	iTouch 27 New Games brochure, JVL Corporation, 2005. 2 pages. iTouch 8 Plus brochure, JVL Corporation, 2005, 2 pages.
JP		2003	Kozierok, The PC Guide, Site Version 2.2.0, http://www.pcguide.
JР		2003	com, Apr. 17, 2001.
JP JP		2005 2005	Liang et al., "Dynamic class loading in the Java virtual machine",
JР		2006	ACM OOPSLA, pp. 36-44, 1998.
JP		2007	Look and iTouch brochure, JVL Corporation, 2004, 2 pages.
JP JP		2007 2007	Megatouch Champ brochure, Merit Industries, Inc., 2005, 2 pages. Melnik et al., "A mediation infrastructure for digital library services",
JР		2007	ACM DL, pp. 123-132, 2000.
JP	2007-104072 4/2	2007	Mod Box Internet brochure, Merit Entertainment, 2006, 2 pages.
JP JP		2007	Newsome et al., "Proxy compilation of dynamically loaded java
JP		2007 2007	classes with MoJo", ACM LCTES, pp. 204-212, 2002.
JP		2007	Schneier, "Applied Cryptography", Second Edition, John Wiley & Sons, Inc. New York, 1996.
JР		2007	Vortex Brochure, JVL Corporation, 2005, 2 pages.
JP JP		2008 2009	Waingrow, "Unix Hints & Hacks", Que Corporation, Indianapolis,
JР		2009	IN, 1999.
TW		2002	Press Release, "MusicMatch Announces Commerical Availability of
TW TW		2005 2006	Meta Trust Certified MusicMatch jukebox", PR Newswire, New York; Nov. 15, 1999, extracted from Internet, http://proquest.umi.
wo		1986	com on Sep. 17, 2002.
WO		1990	White, "How Computers Work", Millennium Ed., Que Corporation,
WO WO		1990 1991	Indianapolis, IN, Sep. 1999 (Sep. 22, 1999).
wo		1991	Patent Abstract of Japan vol. 95, No. 010 & JP 07 281682 A (Naguo
WO	WO 93/16557 8/1	1993	Yuasa), 27 Oct. 1 JP 07 281682, figure 1-6 abrége. Bonczck, Robert H. et al, "The DSS Development System", 1983
WO WO		1993 1993	National Computer Conference, Anaheim, California, May 16-19,
WO		1993 1994	1983, pp. 441-455.
WO		1994	"High-speed Opens and Shorts Substrate Tester", IBM Technical
WO		1994	Disclosure Bulletin, vol. 33, No. 12, May 1991, pp. 251-259.
WO WO		1994 1995	"Darts Revolution Again", Replay Magazine, Mar. 1991, pp. 146-148.
wo		1995	"Robotic Wafer Handling System for Class 10 Environments" IBM
WO		1996	Technical Disclosure Bulletin, vol. 32, No. 9A, Feb. 1990, pp. 141-
WO WO		1996 1996	143.
WO		1996	Galen A. Grimes, "Chapter 18, Taking Advantage or Web-based
WO	WO 98/07940 2/1	1998	Audio." Petri Koskelainem "Report on Streamworks TM ".
WO WO		1998	W. Richard Stevens, "TCP/IP Illustrated: vol. 1, the Protocols".
WO WO		1998 1999	Nowell Outlaw "Virtual Servers Offer Performance benefits for Net-
wo		2001	works Imaging".
WO	WO 01/08148 2/2	2001	IBM Technical Disclosure Bulletin, vol. 30, No. 5, Oct. 1987,
WO		2001	"Method for Automated Assembly of Software Versions", pp. 353-
WO WO		2001 2002	355. Ahanger et al; A Digital On-Demand Video Service Supporting Con-
WO		2002	tent-Based Queries; 1993; 9 pages.
_			, , , , , , , , , , , , , , , , , , , ,

(56) References Cited

OTHER PUBLICATIONS

Chan et al., "Distributed servers architectures for networked video services", IEEE Trans on Networking, vol. 9, No. 2, pp. 125-136, 2001.

Chen et al., "Optimization of the grouped sweeping scheduling (GSS) with heterogenous multimedia streams", ACM Multimedia, pp. 1-7, 1993.

Crutcher et al., "The networked video Jukebox", IEEE Trans. on circuits and systems for video technology, vol. 4, No. 2, pp. 105-120, 1994

Drews, C.; Pestoni, F.; "Virtual jukebox: reviewing a classic," Proceedings of the 35th Annual Hawaii International Conference System Sciences, pp. 887-893, Jan. 7-10, 2002.

"Foobar 2000 Evaluation Updated," MonkeyBiz, Aug. 3, 2008, 4 pages (with partial English translation), http://www.monkeybizinfo.blogspot.jp/2008/08/foobar2000.html.

Gallardo et al., "Tangible Jukebox: back to palpable music", ACM TEI, pp. 199-202, 2010.

Hewlett-Packard Development Co; HP Open View Storage Data Protector Admin's Guideline Manual Edition; May 2003; Copyright 2003; 60 pages http://h20000.www2.hp.com/bc/docs/support/SupportManual/c006637931/c00663793.pdf.

IBM Technical Disclosure Bulletin, vol. 41, No. 1, Jan. 1998, "Safe Mechanism for Installing Operating System Updates with Applications," pp. 557-559.

Kraiss et al., "Integrated document caching and prefetching in storage hierarchies based on Markov chain predictions", The VLDB Journal, vol. 7, Issue 3, pp. 141-162, 1998.

Ludescher et al., "File Storage Management for TFTF physics data", IEEE, pp. 856-859, 1992.

Merriam Webster's Collegiate Dictionary, Ninth Edition, Merriam Webster, Inc., p. 1148, 1986 (definition of "Stand").

Merriam Webster's Collegiate Dictionary, Tenth Edition, Merriam Webster, Inc., p. 361, (definition of dynamically).

Peter Pawlowski, "Basic Player Whose Appearance and Functions can be Customized Freely 'Foobar 2000' v1.0 is Unveiled," Windows Forest, Japan, Jan. 12, 2010, 3 pages (with partial English translation), http://forest.impress.co.jp/docs/news/20100112_341870. html.

Pohlmann, "Principles of Digital Audio", Third Edition, 1995.

Rollins et al., "Pixie: A jukebox architecture to support efficient peer content exchange", ACM Multimedia, pp. 179-188, 2002.

Sprague et al., "Music selection using the partyvote democratic Jukebox", ACM AVI, pp. 433-436, 2008.

Strauss et al., "Information Jukebox A semi public device for presenting multimedia information content", Pers. Ubiquit Comput, 7, pp. 217-220, 2003.

"About Ecast" leaflet, at least as early as Nov. 8, 2013, 2 pages. Austin Cyber Limits: Name That Tune [online], [retrieved Jul. 23, 2001], Retrieved from the Internet, 6 pages, http://www.pbs.ork.klru/austin/games/namethattune.html>.

Back to the Tunes [online], [retrieved Jul. 23, 2001], Retrieved from the Internet, 1 page. http://cite5.hispeed.com/rules.html>.

Fachbuch, "Unterhaltungselektronic von A-Z" gfu 1, VDE-Verlag GmbH, pp. 12-13, 1 page, 1983-1984.

Johnny Rockets Name That Tune [online], [retrieved on Mar. 7, 2002], Retrieved from the Internet, 3 pages. http://www.johnnyrockets.com/docs/funstuff.html>.

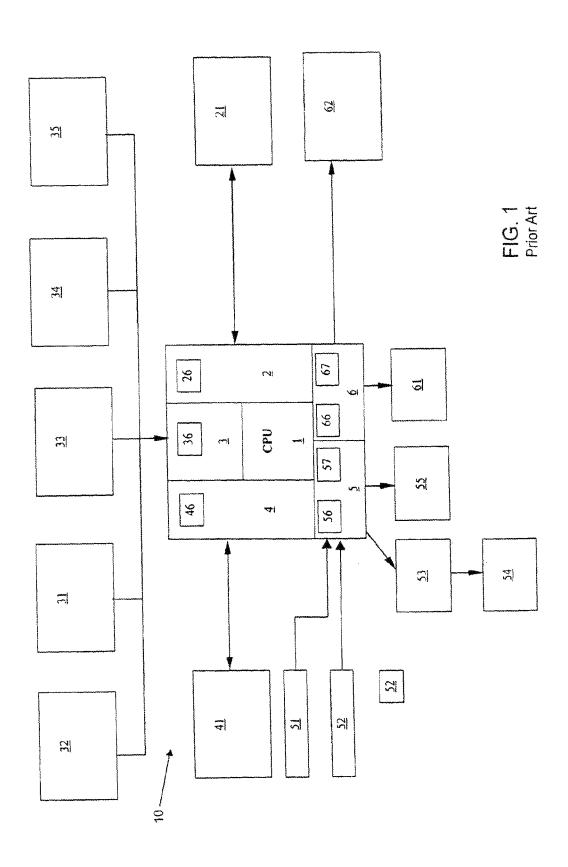
Mickey B's Jukebox Revue—Name That Tune![online], [retrieved Jul. 23, 2001], Retrieved from the Internet, 2 pages, http://mickeyb.com/tune/>.

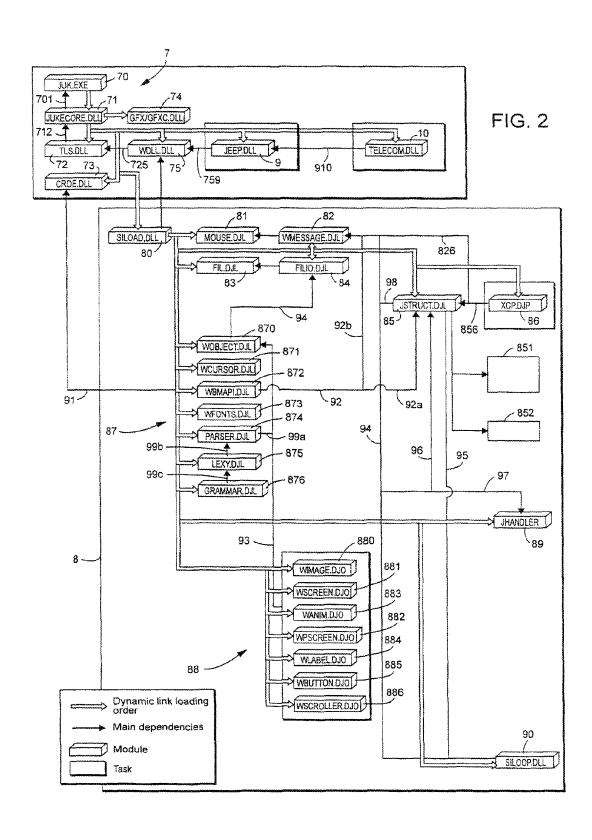
Stewart "Ecast Deploys Marimba's Castanet to Power an Internet-Based, Entertainment Management Systems for the Out-of-Home Market", Marimba, Press Release, 3 pages, Dec. 13, 1999. www.marimba.com/news/releases/ecase.dec13.html.

Tom & Liz 's Name That Tune [online], [retrieved Jul. 23, 2001], Retrieved from the Internet, 10 pages. http://home.att.net/~tomnliz/Music.html.

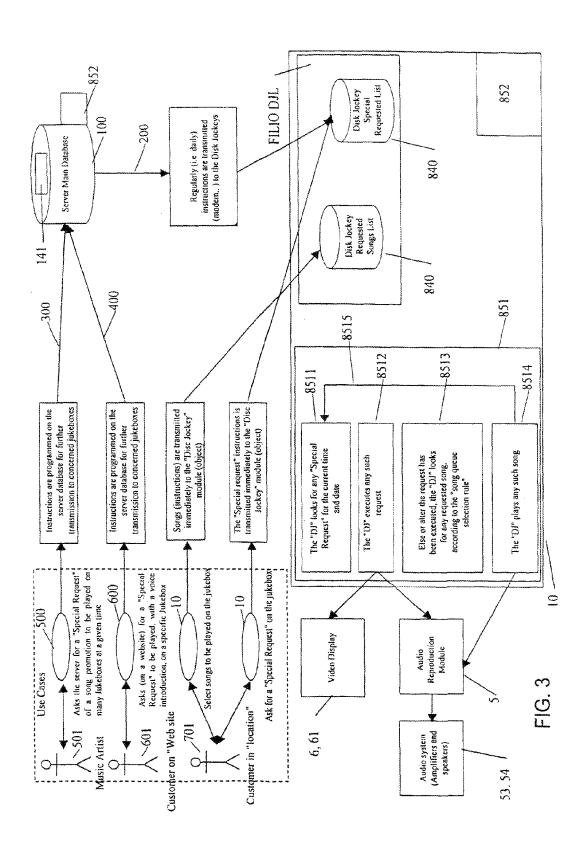
* cited by examiner

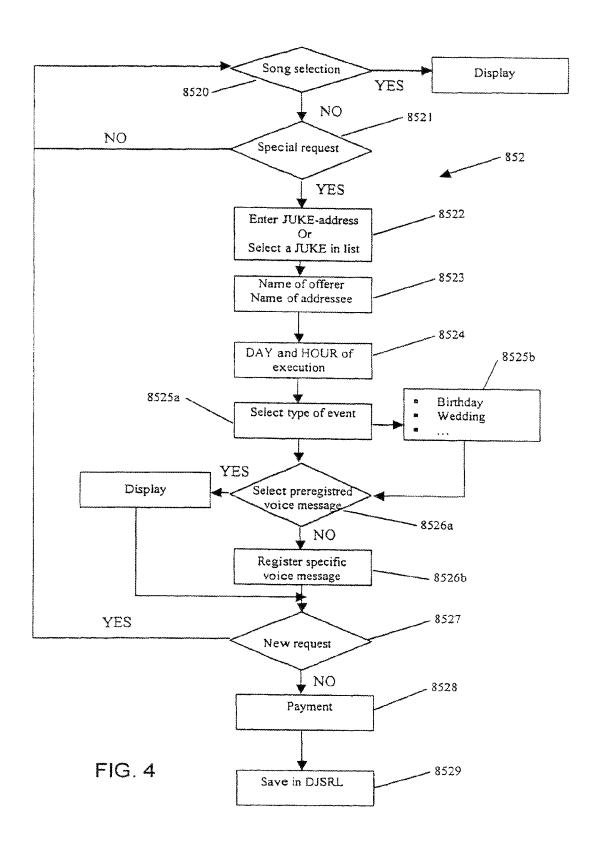
Sep. 8, 2015





Sep. 8, 2015





PROCESS FOR ORDERING A SELECTION IN ADVANCE, DIGITAL SYSTEM AND JUKEBOX FOR EMBODIMENT OF THE PROCESS

CROSS-REFERENCES TO RELATED APPLICATIONS

This application is a continuation of application Ser. No. 12/801,744 filed Jun. 23, 2010 now U.S. Pat. No. 8,275,668, which is a divisional of application Ser. No. 11/267,303 filed Nov. 7, 2005 now U.S. Pat. No. 7,778,879, which is a divisional of application Ser. No. 09/585,325 filed Jun. 2, 2000 now abandoned, which claims priority to French Patent Application No. 00 02252 filed Feb. 23, 2000, the entire 15 contents of which are hereby incorporated by reference in this application.

FIELD OF THE INVENTION

This invention relates to a process for ordering a selection in advance, and the digital system and jukebox for embodiment of the process.

BACKGROUND OF THE INVENTION

French patent application 98 09358 deposited on Jul. 22, 1998 describes a specific function of a jukebox and a network connecting a set of jukeboxes to a server in order to distribute the title song of a new album of a singer on a given date 30 the devices according to the invention. defined as the distribution and marketing date of the song, onto all reproduction systems. However, with this type of system, a particular jukebox user or a user connected to the host server through the Internet supervising a number of song can be played on a given date on a given jukebox or on several given jukeboxes.

BRIEF SUMMARY OF THE INVENTION

The first purpose of this invention is to overcome this disadvantage of prior art by proposing a process for ordering a selection in advance.

This purpose is achieved by a process for ordering a selection in advance, characterized in that it includes a step in 45 which a menu is displayed followed by a selection in this menu, to make specific requests and particularly:

a step displaying the event for which the advance order of a selection is made, and then selection of the event;

a step displaying the identity of destination equipment on 50 which the selection is to be made, and then selection of this equipment;

a step displaying the date and time at which the selection shall be made on the destination equipment;

a step in which particular requests are recorded and down- 55 loaded onto a file only after payment has been verified.

Another purpose is to propose a digital jukebox capable of embodying the process for advance order of a selection.

This purpose is achieved using a device for an advance order of a selection characterized in that the jukebox d or the 60 server d comprise means of displaying information on a screen close to the user to guide him in making specific

means of saving these requests in a specific file;

means of periodically examining the file saved on the 65 equipment to trigger execution of the request at the given date and time, or to trigger its downloading.

2

Finally, the last purpose is to propose a digital system forming a remote distribution network for audiovisual data for embodiment of the process.

This purpose is achieved by a digital system forming a remote distribution network, characterized in that the remote distribution network comprises a host server connected firstly to the Internet network, and secondly to a set of jukeboxes through a second network, each jukebox being identified by an identity number or an address that can be used to load each specific request on the destination jukebox and means of scanning the file containing specific requests on each jukebox to have them executed when the local time and the day correspond to the selected time and day.

BRIEF DESCRIPTION OF THE DRAWINGS

Other features and advantages of this invention will become clearer after reading the following description with ₂₀ reference to the attached drawings in which:

FIG. 1 represents a diagrammatic view of the electrical scheme of the equipment forming the invention;

FIG. 2 represents a logic diagram showing relations between modules of libraries and object modules imported on 25 the jukebox;

FIG. 3 diagrammatically represents the different interactions between a user, the jukebox and a server connected to the jukebox through a distribution network;

FIG. 4 represents the different steps of the process used by

DETAILED DESCRIPTION OF THE INVENTION

Preferably, but non-restrictively, the audiovisual reproducjukeboxes is unable to select a song and order it so that the 35 tion system (jukebox) 10 uses the equipment elements listed and referenced below.

> The system unit 1 with a microprocessor is a high performance PC compatible system, the choice at the time of implementation was made for a Pentium type system with memory means and for example the following characteristics:

compatibility with the Vesa local bus,

processor cache memory: 256 kbytes minimum,

RAM memory: 32 Mbytes,

high performance serial ports,

microprocessor controlled SVGA type graphic adapter, SCSI/2 type bus controller,

self-powered static RAM memory.

Any other system unit with equivalent or better performances could be used in the invention.

This system unit controls and manages a sound control circuit 5, a telecommunications control circuit 4, an input control circuit 3, a mass memory control circuit 2, and a display means control circuit 6. The display means are composed primarily of a SVGA type flat screen, high resolution, low radiation video monitor 62 with no interlacing. This is the monitor that will be used for image reproduction (for example album covers for musical selections), and to display graphics and video clips.

The mass memory means 21, for example using high speed high capacity SCSI type hard disks, are associated with the memory means already installed in the microprocessor controlled device. These means are used for the storage of digitized, compressed and possibly encrypted audiovisual information.

A high speed telecommunications modem adapter 41 is included to create the link with an audiovisual information distribution network controlled by a host server.

For the reproduction of audio information in musical selections, the system comprises loudspeakers **54** into which the signal from an amplifier tuner **53** connected to the electronic circuit **5** containing two memory buffers **56**, **57** is input, the amplifier tuner being of the digital signal processor (DSP) 5 type of music synthesizer designed to support a large number of input sources while providing an output with decrypted and decompressed digital signals with a CD (compact disk) or 1-Hifi type quality.

Similarly, the display means control circuit also comprises 10 two memory buffers **66**, **67**, the purpose of which is described later

A 240 watt ventilated power supply with temperature regulation supplies energy to the system. This power supply is protected against overcurrents and overoscillations.

The audiovisual reproduction system manages a touch-screen 33 that includes a glass coating panel based on the "advanced surface wave technology" and an AT type bus controller, through its input controller circuit 3. This touch-screen displays various selection information for use by customers, and control and management checking information for use by the manager, on the video monitor 62 or television screen 61, and the system owner then uses it to make a selection. It is also used for maintenance purposes in combination with an external keyboard 34 that may be connected to 25 the system and that is provided with a keyboard connector controlled by a key lock 32 through the interface circuit 3.

The input circuit 3 also forms the interface between the system and a remote control assembly 31, for example composed of a radio frequency RF remote control.

A fee payment device 35 is also connected to the input interface circuit 3. Another device may be used capable of collecting any means of payment by coins, notes, tokens, magnetic cards or smart cards or any combination of these means of payment.

The system is designed to be fitted in a frame or rack that is provided, together with customizable external finishings.

Apart from these elements, a cordless microphone **55** is connected to the sound controller **5** that can transform the jukebox into a powerful public announcement and information system, or possibly a karaoke machine. Similarly, a cordless loudspeakers system may be used by the system to broadcast songs into other rooms.

The manager can use the remote control assembly 31, for example from behind the bar, to access and control different 45 controls such as:

the microphone on/off switch.

the loudspeaker mute control,

the sound volume control,

the control to cancel the musical selection currently being 50 played.

Two buffers **56**, **57** are associated with the sound controller circuit **5** so that each can alternately memorize information corresponding to about at least a quarter of a second of sound. Similarly, two buffers **66**, **67** are associated with the video 55 controller circuit **6**, each capable of alternately memorizing about at least a tenth of a second of image. Finally, one buffer **46** is associated with the communication controller circuit **4**, another **36** with the input interface **3** and another **26** with the memory interface **2**.

The operating software in the system was generated around a library of tools and services specifically designed for the audiovisual field in a multimedia universe. This library advantageously includes a high performance multi-task operating system that efficiently enables simultaneous execution 65 of multiple code fragments. This operating software enables concurrent and orderly execution, thus avoiding any conflict

4

between operations carried out on display means, audio reproduction means and management of telecommunication links through the distribution network. Furthermore, this software is extremely flexible.

The operating system is shared into modules comprising a first starter module 7 itself sub-divided into a first main program module 70 "JUK. EXE" that verifies the memory and verifies if the minimum number of objects necessary to enable operation of the jukebox is present; a second module 71 dynamically linked to it and dependent on it consists of the "JUKECORE. DLL" module. The function of this second module 71 is to contain C language libraries and to perform the main task.

The architecture of the operating system comprises a distribution of the different tasks into software modules connected to each other by dynamic links or composed of executable subprograms presenting main dependence links with other parts of the operating system. Each of the modules is composed of object files or dynamic link libraries organized according to a plurality of dependence levels described in the attributes. The attributes of an object or a library indicate the version number and dependences of the object file or the library with respect to other object files as described below for the PARSER. DJL module. Each attribute indicates the level assigned to the module. Thus, the JUK.EXE 70 module is at a higher level than the JUKECORE. DLL 71, TLS. DLL 72, CRDE. DLL 73, GFX. DLL 74, WDLL. DLL 75, JEEP. DLL 9 and TELECOM. DLL 10 modules, but the TELECOM. DLL 10 module depends on the JEEP. DLL module 9 (see link 910) and it is therefore at a lower level than JEEP. DLL 9.

Similarly, the level of JEEP. DLL 9 (see link 759) is lower than the level of the WDLL. DLL module 75 since it is dependent on it and TLS (link 725) is at a higher level than WDLL 75. On the other hand, TLS. DLL and GFX. DLL modules may be at the same level. The main task comprises a module (JUKECORE. DLL) designed to initialize or load the module 73, the program core "CRDE. DLL", initialize or load the graphic management module (GFX. DLL) 74, initialize or load the library loading module (WDLL. DLL) 75, load the telecommunication tasks Telecom module (DLL) 10, load the TLS. DLL module 72 that contains all usages necessary for the jukebox, for telecom, time, decryption, etc., initialize or load the library of JEEP. DLL (Juke Execution Exchange Protocol) programs performing integrity server and loading request tasks and the dialog with the, server, and starting the program module 80, SILOAD. DLL as the main task. The main jukebox application task comprises the module (SI-LOAD. DLL) containing the loader program library designed to verify the required dynamic links library versions in the library loading module (WDLL. DLL), to load them or call the telecommunication tasks module to perform the file transfer. The WDLL. DLL module comprises the list of the minimum versions necessary for operation in a DLL. DEFAULT file, and the list of all functions represented either by libraries with a DLL, DJL suffix, or by object files with a DJO suffix. Each object or library contains the list of all functions that the library or the object needs, and version numbers and dependences. The WDLL. DLL library loading module manages all new modules, controls inter-dependences and checks that downloaded modules do not have any other dependences and have been loaded with the necessary versions. The application part 8 specific to a jukebox comprises a number of modules loaded and run by the SILOAD. DLL module and defining the following display windows:

a mouse signal or touch-screen signal processing module **81**, called MOUSE. DJL,

- a module **82** for the processing of messages exchanged between objects and various other modules, called WMESSAGE. DJL,
- a disk files management module 83, called FIL. DJL
- a disk files read-write module 84, called FILIO. DJL
- a module JSTRUCT. DJL 85 for supervision of all events generated by equipment such as the touch-screen, the sound card, the coin collection equipment processing interface.

The SILOADL. DLL module manages loading of modules specific to the terminal task, namely all previously enumerated DJL modules and jukebox library modules 87 built up using WOBJECT. DJL 870 that manages the objects such as the mixer, purchases; the WCURSOR. DJL module 871 that manages cursor movements; the DBMAPI. DJL module 872 that manages the database; the WFONTS. DJL module 873 that manages all font types; the PARSER. DJL module 874 (syntax analysis program) that analyzes and generates screens starting from the script that creates a configuration 20 file WIN. DEF and verifies the grammar using the "GRAMMAR. DJL" module 876 and the "LEXY. DJL" module 875 that is the lexical word functions assignment module inside the language. The PARSER. DJL module 874 contains the following information in its file header:

char*parser_version_info=DLL_INFO DJL;"
DLL-NAME PARSER. DJL;"
"VERSION 1;"
"CREATOR KENDALF;"
"REQUIRIES lexyy. djl;4;"
"REQUIRIES grammar - djl;5";

All modules and all libraries (DJO, DLL, DJL) contain information similar to the information in the PARSER. DJL module and this information determines version and dependence needs.

Thus, the PARSER. DJL module needs LEXY. DJL version 4 and GRAMMAR version 5 modules otherwise it cannot be executed by the system. The double arrows between the different modules in FIG. 2 show the order of loading the different files.

Thus, as seen above, the first step is to load JUKE. EXE followed by JUKECORE. DLL, so that GFX. DLL, TLS. 45 DLL, WDLL. DLL, JEEP. DLL, TELECOM. DLL, CRDE. DLL and SILOAD. DLL can be loaded from JUKECORE. DLL.

A set of modules **88** contains the list of files that are to be included to manage the windows of a window display on the 50 jukebox type terminal monitor.

This list of objects is composed of:

- a "WPSCREEN. DJO" objects file 883 that defines the main page on the monitor,
- a "WSCREEN. DJO" objects file **881** that is used to determine the number of screens available and thus displays several windows or screens on this main page,
- a 'WIMAGE. DJO" objects file **880** that determines and defines the image that it will use in the screen,
- a "WANIM. DJO" objects file **882** that defines the animation when the image is animated,
- a "WBUTTON.DJO" objects file 885 that defines and manages buttons that are used on the main page screen such as the control buttons used in a typical graphic interface,
- a "WLABEL. DJO" objects file **884** that creates labels used to write on an object; and

6

a "WSCROLLER. DJO" objects file **886** that defines vertically scrolling display areas.

The WIN. DEF configuration file calls one or more of the *. DJO files mentioned above depending on needs.

A "JHANDLER" library is used to define fixed usages of screens and therefore to determine which interfaces provide the link with the different objects defined by the previous modules.

Library module "XCP. DJL" **86** is used to manage payment tasks such as bank note reception systems or coin or smart card payment devices, and also to save basic information in the IBUTTON which is an integrated circuit for the storage of secret codes for the jukebox manager, and that can be used for example to decrypt encrypted files or songs.

The JSTRUCT.DJL module 85 will run module 851 called the "disc-jockey" the function of which will be described below in relation to FIG. 3, when an event occurs corresponding to the end of song selection. Depending on the detected event, the same JSTRUCT.DJL module may start the request processing module 852, the function of which will be described below in relation with FIG. 4. This same request processing module 852 is also installed on the host server 100(FIG. 3) to allow a user 601 connected to the server through a terminal 600 and the Internet network 400 to order a selection in advance. A music artist 501 can also use a terminal 500 connected to the server 100 through the Internet network 300 to make a special request for promotion of a song to be executed on several jukeboxes at a given time of a given day. Finally, a user 701 in a room equipped with one or several jukeboxes can make a selection of songs or special requests for advance orders of a selection or a special event, himself or on the jukebox 10. Song selection requests are loaded into the songs queue 840, and advance orders of a selection or a special event requests are loaded into a file 841 containing special requests and all information necessary to process these special requests. The server 100 will also include a file 141 storing these special requests until the time that the server makes a transmission to the specific jukebox or the set of specific jukeboxes to which one or several requests are applicable. This transmission is made through a network 200, for example a telecommunications network. The disc-jockey module 851 executes a first step 8511 in which it looks in the jukebox file 841 to find any special requests for the current time and the current date. If it finds any, the disc-jockey executes this request at step 8512 and starts reproduction of the selection ordered in advance and the individual message. if any. At the end of this operation, the disc-jockey checks, in step 8513, to see if there are any songs ordered in advance, or goes onto the next song stored in the queue in the file 840. In step 8514, the disc-jockey starts execution of this song. The disc-jockey then loops back 8515 to the first step 8511. The special requests processing program module 852 comprises means of producing a display as shown in FIG. 4 asking the user in front of the jukebox or a terminal connected to the Internet, in step 8521, if he would like to select a song in step 8520, or if he would like to make a special request. If he would like to make a special request, the program will use the object modules described above to display windows in which the user can define the jukebox address in step 8522, or select this address in a list downloaded by the server. The user will thus define either the jukebox for which he knows the address, or the jukebox that he selects in the list closest to the person to whom he wishes to offer the selection in his advance order. In the next step, 8523, the program displays screens that the user can use to enter the name of the person sending the song and the name of the person receiving it. In step 8524, the program

displays windows in which the date and time at which the selection will be executed can be defined.

Once this definition has been made, the program goes on to step 8525a in which the user selects the event type that he wishes to celebrate. In this case, the program will display a list of events 8525b defining events such as birthdays, marriage, engagements, etc. The user moves the cursor to one of these events either by action on the touch-screen or by using a keyboard or a mouse, and validates this selection. Once the selection has been validated, the program goes on to the next step 8526a in which it displays a message asking the user if he would like to offer this selection with a prerecorded voice message. If so, the program displays windows that guide the user in selecting a prerecorded voice message. If not, the program goes on to the next step 8526b in which the user can make a special voice recording and store the recording with the data making up the file for this special request for an advance order. In step 8527, the program displays a screen asking the user if he would like to make a new request, and if 20 so it loops back to the first step 8520, and if not it asks the user to make a payment in step 8528. This payment may be made by magnetic credit card or smart card in a known manner or any other means such as a coin machine, bank note machine units that will be invoiced to the user's line, and acceptance of the invoice. Once this payment has been made and verified, the program goes on to the save step in the file 841 containing the list of special requests to the disc-jockey (DJSRL). This file **841** is located either in the jukebox if the selection and 30 special request are made locally on the same jukebox installed in the bar, or in the file 141 on the server if the selection is to be made on another jukebox. The jukebox 10 also comprises a program that can detect special requests made to another jukebox installed in another location and can write this 35 request into the file **141** on the server by transmission through the network 200 to the server 100, such that when the server executes its periodic loading routine to the various jukeboxes, it also downloads the specific requests concerning each jukebox. In order to do this, when the server receives this type of 40 special request from a jukebox on the network, it will examine this request by comparing the address of the jukebox contained in the request with the addresses contained in its database and thus determine the identity of the jukebox to which it must address the special request. This special request will be routed to the destination jukebox when periodic updates are being made or during periodic communications.

Obviously, for communications between the jukebox and the server or an Internet terminal and the server, information is compressed and encoded to enable confidentiality, whereas 50 voice messages may be recorded in plain text not necessarily requiring encoding, but will be compressed for storage purposes to reduce the necessary storage area on the jukebox.

Thus, according to the invention, the selection process comprises a step in which a menu 8520, 8521 is displayed and 55 a selection is made in it to make special requests, and other

a step displaying the event 8525a for which the advance order of a selection is made, followed by selection of the

a step 8522 displaying the identity of a destination equipment on which the selection is to be played, followed by selection of this equipment;

a step 8523 displaying the date and time at which the selection is to be made on the destination equipment;

a step 8529 for recording or downloading to a special requests file only after payment has been confirmed.

According to another characteristic of the invention, it includes a step 8526 for selecting or recording a special

According to another characteristic, the invention comprises a step 8526b for recording messages consisting of recording a personal message.

According to another characteristic, the invention comprises a step 8526a in which a message is selected consisting of choosing one among several messages.

According to another characteristic, the invention comprises a step in which all jukeboxes make a connection to Internet and call the server site 100.

According to another characteristic, the display steps are made by sending Internet messages to the terminal 600 in order to display the selection steps necessary for selection steps, these selection or determination steps being made by messages sent from the terminal 600 to the server 100 as a function of actions performed by the user on his terminal to define his selection in advance.

The invention comprises a step in which the messages and requests are recorded on a file 141 on the host server 100 with the address of the destination equipment 10 and are then downloaded onto it at a given moment on the displays done.

The invention comprises a step to examine a special file or by displaying the number of telephone communication 25 841 on each equipment 10 containing the recorded requests, to determine if the current date and time on the equipment 10 correspond to the required date and time for execution of the advance request.

> Similarly, the jukebox 10 or server 100 comprise means of displaying information on a screen close to the user to guide him in the choice of special requests;

means of recording these requests in a special file 841, 141; means of periodically examining the file 841, 141 recorded on the equipment to trigger execution of the request at the given time and date, or to trigger downloading of this request.

The invention comprises means of remotely transmitting these requests to the destination equipment.

According to the invention, the display means are composed of object modules added in *. DJO files called according to needs by the jukebox configuration file.

The files 840, 841 will be saved in the FILO. DJL module and program modifications necessary for operation and embodiment of this process will be downloaded in the different modules, in accordance with the downloading process defined in patent application 98 09358.

The device also comprises a means of defining rules for execution of the songs queue and thus modifying the behavior of the disc-jockey according to one of the following criteria; first in first out (FIFO) in the queue, at random and selecting the most popular songs first, eliminating the second consecutive song by the same artist or based on a combination of the previous rules or any other rule.

The remote distribution network comprises firstly a host server connected to the Internet network, and secondly through a second network, to a set of jukeboxes each identifiable by an identity number or an address in order to load each special request on the destination jukebox and means of scanning the file containing the special requests on each jukebox to have them executed when the local time and the day 60 correspond to the selected time and day.

It will be obvious to persons familiar with the subject that many different embodiments would be possible within the framework of this invention as claimed. Consequently, the embodiments described herein must be considered as illustrations and can be modified within the field defined by the attached claims, and the invention cannot be restricted to the details described above.

9

What is claimed is:

- 1. A method for ordering, from a user's terminal connected to a host server via a communication network, a selection playable on destination equipment connectable to the host server via the communication network, the method comprising:
 - displaying, on the user's terminal, a list of selectable items that are playable on the destination equipment;
 - enabling a user to select, via the user's terminal and from the list, an item to be played on the destination equipment, as well as a time at which the selection is to be played;
 - displaying, for the user on the user's terminal, the destination equipment, the selection, and the time at which the selection is to be played:
 - receiving, at the user terminal, the selection and the time at which the selection is to be played;
 - transmitting, from the user's terminal to the server, information specifying the destination equipment, the selection, and the time at which the selection is to be played to 20 cause the information specifying the destination equipment, the selection, and the time at which the selection is to be played to be transferred to the destination equipment;
 - wherein the destination equipment is different than the 25 user's terminal.
- 2. The method of claim 1, wherein the information is saved to a file on the server, and the file is subsequently transmitted from the server to the destination equipment.
- 3. The method of claim 1, further comprising enabling the 30 user to specify an event for which the selection is being made.
- **4**. The method of claim **1**, further comprising enabling the user to choose or save a message.
- 5. The method of claim 4, further comprising transmitting the message to the server.
- **6**. The method of claim **4**, wherein the message is selectable from a plurality of predefined messages.
- The method of claim 4, further comprising saving, to the server, the message and an address of the destination equipment.
- **8**. The method of claim **1**, further comprising further comprising verifying receipt of payment to authorize generation and transmission of the information specifying the destination equipment, the selection, and the time at which the selection is to be played.
- **9**. A method of operating a jukebox system including an electronic device connected to a host server via a communication network, the method comprising:
 - displaying, on the device, a user interface configured to enable a user to order, in advance, a selection to be 50 played on at least one destination device connectable via the communication network to the host server, wherein each said destination device and said server each comprise a respective request processing module,
 - the user interface being further configured to display a 55 menu enabling the user to specify a selection to be played, and a future time and date at which the selection is to be played;

10

- receiving, via the user interface, at least one specific request concerning a selection to be played, a future time and date at which the selection is to be played, and a selection of at least one destination device;
- displaying, via the user interface, an indication of each said destination device on which the selection is to be played, the selection to be played, the date and time at which the selection is to be played, and an event for which the order of a selection is made in advance; and
- in response to the electronic device receiving information that payment has been made and verified, generating via at least one processor of the electronic device a file listing the specific request concerning the selection to be played and transferring said file to the server;
- wherein the file is downloadable to each said specified destination device on which the selection is to be played; and
- wherein at least one of the specified destination devices on which the selection is to be played is not the user terminal.
- 10. The method of claim 9, wherein the user interface is programmed to enable the user to specify a message for later display.
- 11. The method of claim 10, wherein the message is included in the file.
- 12. The method of claim 10, wherein the user interface is programmed to enable the user to specify a message for later display select a predefined message and to specify a custom message.
- 13. The method of claim 9, wherein the user interface operates under the control of the server over the communication network.
- **14**. The method of claim **10**, wherein the message is displayable on the specified destination device.
- 15. The method of claim 9, wherein the specified destination device is programmed to determine whether a current date and time thereon matches the date and time specified in the file.
- 16. The method of claim 15, wherein the specified destination device is further programmed to cause the selection to be played in the event that there is a match between the current date and time thereon and the date and time specified in the file.
- 17. The method of claim 9, wherein the file is recorded directly on the destination device when the electronic device is the destination device on which the selection is to be played.
- 18. The method of claim 9, wherein the file is not a part of the selection to be played.
- 19. The method of claim 9, wherein the specific requests listed in the file specify at least one or more selections to be played, along with corresponding future time(s) and date(s) at which the one or more selections is/are to be played.

* * * * *